

# The ADA recommends 6 servings of bread, cereal, rice or pasta to those with a disease of carbohydrate intolerance?

Fats, Oils, and Sweets  
**USE SPARINGLY**

Milk, Yogurt, and  
Cheese Group  
**2-3 SERVINGS**

Vegetable Group  
**3-5 SERVINGS**

Bread, Cereal,  
Rice, and  
Pasta Group  
**6-11  
SERVINGS**

## KEY

■ Fat (naturally occurring  
and added)

■ Sugars  
(added)

These symbols show fat and  
added sugars in foods.



# Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids (Macronutrients) (2002)

**Is it possible to  
meet the RDI  
recommendations  
on a low carb diet?**

# MENU COMPARISON



## Menu A: Food Pyramid-Based Menu – 2000 Calorie

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### **Breakfast**

English muffin with 4 TBS low-fat Cream Cheese, 2 TBS All-Fruit Strawberry Topping  
Medium banana, 1 cup of skim milk

### **Lunch**

½ cup of vegetable soup  
Whole wheat pita stuffed with 2 ounces of chicken breast meat, 1 TBS of fat free mayonnaise, lettuce and tomato  
Single-Serve Bag Pretzels

### **Snack(s)**

Medium apple

### **Dinner**

1 Cup Romaine, 2 Cherry Tomatoes, 2 TBS Reduced Calorie Italian Dressing  
2 ounces grilled Chicken Breast  
1 cup of pasta twists tossed with ½ Cup Low-Sodium Tomato Sauce & 1 TBS Grated Parmesan Cheese  
Whole-grain dinner roll with 1 TBS margarine  
Cola-Type Soda (12-oz Can)

### **Dessert**

1/2 cup of frozen fat free chocolate yogurt topped with 2 tablespoons of chocolate sauce, and 2 tablespoons of light cool whip

**2013 Calories** – 55g Fat, 313g Carbohydrate, 16g Fiber, 75g Protein

# MENU COMPARISON

## Menu B: Controlled-Carb Nutritional Approach 2000 Calorie

### Breakfast

1 cup plain yogurt, 1/2 cup Blueberries

### Snack(s)

1oz cashews

### Lunch

Chef Salad - 3 cups romaine, 6 cherry tomatoes, 1/4 cup shredded red cabbage, 1/2 cup sliced cucumbers, 1 TBS chopped pecans, 1oz roast beef, 1oz turkey breast, 1oz slices ham, 1oz cheddar cheese shredded, 1 Large Hard-Cooked Egg (chopped), 3 TBS blue cheese dressing

Multigrain Roll with 1 teaspoon butter

V-8 Juice

### Dinner

1 Cup Romaine, 2 Cherry Tomatoes, 1 TBS Dressing

Veal in mustard cream sauce (veal, crème fraiche, stone ground mustard, plum tomatoes, onions, white wine, olive oil)

1 Cup Steamed Broccoli

1/2 Cup Brown & Wild Rice

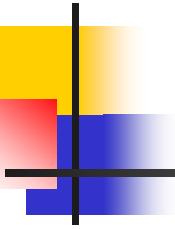
Iced Tea with Fresh Lemon

### Dessert

3/4 Cup strawberries, 1oz cheddar cheese, 1oz Dark Chocolate

**2071 Calories** – 125g Fat, 137g Carbohydrate, 26g Fiber, 117g Protein

# MACRONUTRIENT COMPARISON



## Menu A: Food Pyramid

**Grains - 6 Servings**

**Vegetables – 3 Servings**

**Fruits – 2 ½ Servings**

**Milk/Dairy – 3 Servings**

**Meat/Poultry/Fish/Legumes – 2 Servings**

## Menu B: Controlled Carbohydrate

**Grains - 2 Servings**

**Vegetables – 8 Servings**

**Fruits – 2 ½ Servings**

**Milk/Dairy – 2 Servings**

**Meat/Poultry/Fish/Legumes – 5 Servings**

# NUTRITIONAL COMPARISON – KEY DIFFERENCE!

## Menu A: Food Pyramid

Nutrient	Units	Intake	RDA	% RDA
<i>Fat-Soluble Vitamins</i>				
Vitamin A	mcg_RE	661	800	82.62
Vitamin D	mcg	0	5	0
Vitamin E	mg_ATE	6.64	8	82.99
Vitamin K	mcg	10.56	65	16.25
<i>Water-Soluble Vitamins</i>				
Vitamin C	mg	48.95	60	81.58
Thiamin	mg	1.46	1.1	132.38
Riboflavin	mg	1.66	1.1	150.71
Vitamin B-6	mg	1.7	1.3	130.7
Vitamin B-12	mcg	2.22	2.4	92.67
Niacin	mg	18.27	14	130.48
Folate	mcg	402.7	400	100.68
<i>Trace Minerals</i>				
Iron	mg	14.33	15	95.56
Zinc	mg	7.32	12	60.98
Selenium	mcg	84.04	55	152.81
<i>Major Minerals</i>				
Calcium	mg	1053.9	1000	105.39
Phosphorus	mg	1329.3	700	189.9
Magnesium	mg	311.77	320	97.43

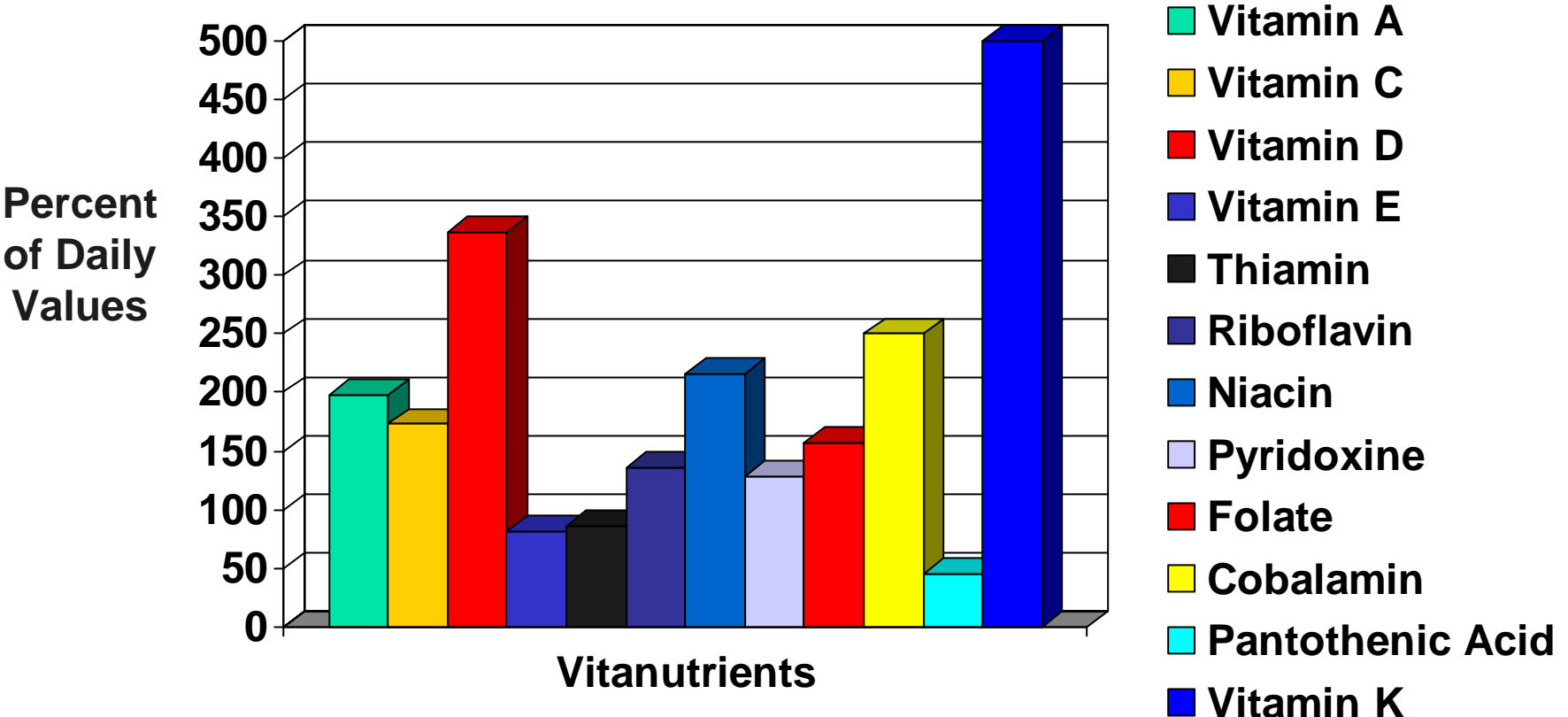
## Menu B: Controlled-Carb

Nutrient	Units	Intake	RDA	% RDA
<i>Fat-Soluble Vitamins</i>				
Vitamin A	mcg_RE	1408.8	800	176.1
Vitamin D	mcg	0.24	5	4.8
Vitamin E	mg_ATE	15.91	8	198.9
Vitamin K	mcg	486.72	65	748.8
<i>Water-Soluble Vitamins</i>				
Vitamin C	mg	352.26	60	587.1
Thiamin	mg	1.23	1.1	112.23
Riboflavin	mg	2.37	1.1	215.21
Vitamin B-6	mg	1.95	1.3	150.2
Vitamin B-12	mcg	5.96	2.4	248.41
Niacin	mg	23.72	14	169.46
Folate	mcg	557.21	400	139.3
<i>Trace Minerals</i>				
Iron	mg	15.15	15	100.18
Zinc	mg	19.63	12	163.55
Selenium	mcg	71.09	55	129.25
<i>Major Minerals</i>				
Calcium	mg	1100.7	1000	110.07
Phosphorus	mg	1758.5	700	251.21
Magnesium	mg	395.03	320	123.45

# Nutrient Analysis of Sample Menu With 20 Grams of Carbohydrate Based on Daily Values/RDI

2,000-Calorie Diet

Dr. Atkins was on the Right Track!



# Common criticism relates to high saturated fat/cholesterol



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## ■ What they tell you:

- ↑ LDL-cholesterol will go up
- ↑ Insulin resistance will increase
- ↑ Inflammation will rise

## ■ What they don't tell you:

- Not all SFA have this effect (stearic and palmitic acid)
- Change depends on intake of linoleic acid
- ↑ HDL (Good Cholesterol) and ↓ TAG (Triglycerides go down)
- ↑ LDL ('Bad Cholesterol') increases in size (a good thing!)
- Foods rich in SFA also rich in MUFA
- ↑ Insulin resistance increases only when sugar consumption is increased too!
- Processing of SFA is entirely different when carbs are low